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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/08/94 09/02/93 000000

ESM1/0600

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EXAMINER
CARROLL, J

ART UNIT PAPER NUMBER

2500

DATE MAILED: 06/08/94

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 2/10/94 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- ☒ Notice of References Cited by Examiner, PTO-892.
- ☐ Notice of Draftsman's Patent Drawing Review, PTO-948.
- ☐ Notice of Art Cited by Applicant, PTO-1449.
- ☐ Notice of Informal Patent Application, PTO-152.
- ☐ Information on How to Effect Drawing Changes, PTO-1474.
- ☐

Part II SUMMARY OF ACTION

- ☒ Claims 17 to 29 are pending in the application.
Of the above, claims are withdrawn from consideration.
- ☒ Claims 1 to 16 have been cancelled.
- ☐ Claims are allowed.
- ☒ Claims 17 to 29 are rejected.
- ☐ Claims are objected to.
- ☐ Claims are subject to restriction or election requirement.
- ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
- ☐ Formal drawings are required in response to this Office action.
- ☐ The corrected or substitute drawings have been received on Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
- ☐ The proposed additional or substitute sheet(s) of drawings, filed on has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
- ☐ The proposed drawing correction, filed has been ☐ approved; ☐ disapproved (see explanation).
- ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. ; filed on .
- ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
- ☐ Other

EXAMINER'S ACTION

BEST AVAILABLE COPY

08/08/94

We have entered as Paper No. 6 the Declaration of Constantin Bulucea and accompanying EXDHIBIT A and EXHIBIT B, filed 21 May 1994.

We find the Declaration provides sufficient evidence for us to conclude that the Applicants conceived the Invention claimed prior to the time of Blanchard '785 and exercised due diligence in preparing the Application. We thus withdraw application of Blanchard because it does not constitute prior art information.

We have entered as Paper No.7 the Amendment and accompanying amended figures, filed 21 May 1994.

We approve the changes proposed for the figures.

Due to the Declaration and amendment we withdraw objections and claim rejections as expressed in Paper No. 4.

Amended Claims 17 to 29 comply with the requirements of 35 U.S.C. 112.

We extend onto new grounds the following claim rejections.

Amended Claims 17 to 29 are rejected under 35 U.S.C. 103, excerpted on pages 4 and 5 of Paper No. 4 and incorporated herein by reference thereto, as being unpatentable over presently cited and provided Tonnel teaching, with respect to Claim 17, a trench DMOS transistor cell. A peripheral cell shown in Figure 3 includes at least one trench extending into epitaxial layer (21) to a finite depth, d1, source regions (26) formed in a body region portion (25) that extends a finite depth, d2, at one location,

whereby the body region includes a peripheral portion (22) at another location extending a finite depth, d3. Examining cross-section profile shown in Figure 12, we find that, as opposed to the rendering of Figure 3, Tonnel fully expected that each of d1 and d2 to be less than d3, that d1 exceed d2, and that a distance between either trench and either peripheral body region (22) exceed a distance between either trench and an adjacent body portion region (25). We thus conclude it to have been obvious for oen to have accordingly disposed the regions, portions and trenches of the Figure 3 embodiment.

In re Claims 22 and 23, evidently from Figures 3 and 12, Tonnel expected a DMOS cell to possess two trenches with each trench having four sides.

In re Claim 28, evidently from Figure 3, Tonnel expected a DMOS cell to include two parallel trenches having finite dimensions, thus obviously rendering an open cell configuration.

In re Claim 27, Tonnel expected to physically and electrically tie the trenches together with peripheral ring electrode (24) obviously rendering the claimed closed cell configuration.

Amended Claims 17 to 29 are further rejected under the judicially established doctrine of obviousness-type double patenting as being unpatentable over Claim 2 and its dependent Claims in US 5,072,266, but further considered with Tonnel teaching that differences between the claimed subject matters would have been obvious thereby.

The obviousness-type double patenting rejection, based upon public policy, is intended to prevent prolongation of the patent term by prohibiting claims in a second patent not patentably distinct from claims in a first patent, after In re Vogel, 164 USPQ 619 (CCPA 1970). A timely filed terminal disclaimer in compliance with 37 C.F.R. 1.312(b) would overcome this ground of rejection if the present Application and the Patent are shown to be commonly owned, after 37 C.F.R. 1.78(d).

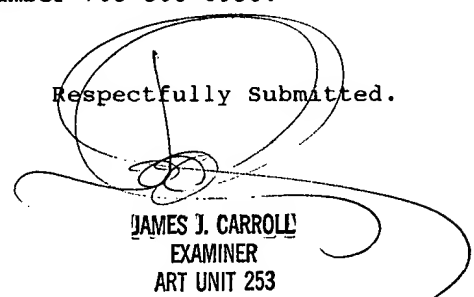
Regarding the Information Disclosure Statement filed 02 July 1993, on Sheet 1 we have crossed out Reference AB because it is directed to a bearing device for wheel axles, Reference AK because it is directed to a flue control device, and Reference AC on Sheet 2 because it is directed to plastic optical fibers.

We reject all claims.

We set a period for response of three months from the date of this Office action.

An inquiry concerning this communication may be directed to Examiner J. Carroll at telephone number 703-308-4926, or to the Group 2500 Receptionist at telephone number 703-308-0956.

Respectfully Submitted.



JAMES J. CARROLL
EXAMINER
ART UNIT 253